

are largely composed of materials so stable as, in the form of coal, to have outlived many geological ages. But, in plants as in animals, the vital energy, which enables them to live and to grow, resides in delicate tissues which are in process of constant change. When change ceases, when the vital energy fails to preserve a whirl of metamorphosis, the organism becomes clogged and death ensues. This is the greatest change of all: one individual is obliterated in favour of another. Why, amongst the various kinds of plants and animals, should one find such extraordinary differences in the normal duration of life? Why should some plants be annuals, whilst others can live through several centuries? Why should a sea-anemone live for fifty years, whilst the vitality of a dog is almost exhausted in ten? We do not know. We should expect to find some connection between the length of an organism's life and the period within which it attains sexual maturity. In some classes of plants and animals we can trace such a connection: the northern races of mankind appear to have gained in longevity by being late in reaching the age of puberty. But this theory is opposed by a host of contradictions, as are indeed almost all attempts to bring within the definition of a rule the multifarious vagaries of Life's activity.

The life of an individual may thus be compared

to the unrolling of a cinematograph  
film : so also  
may be the life of a community. but in  
this case  
the illumination flickers with the  
alternate flashes  
and darkness of birth and death.  
And by a  
peculiar limitation of reproductive  
action it is  
ensured that each runner in the race  
differs in  
constitution from those who give  
place to him.